We claim:

1. A method for use in at least a portion of a wireless communication system in which signals are communicated between at least one of one or more base stations and respective ones of a plurality of terminals, the method comprising the steps of:

using a compensation scheme to compensate for interference among the signals, the compensation being performed using an order of the terminals that defines which terminals' signals are used to compensate for interference in which other terminals' signals; and

assigning at least one operating parameter value to at least one of the terminals, the assigning being based on a predetermined methodology, the methodology being based on one or more criteria none of which is the theoretically highest system throughput.

2. The method of claim 1, wherein the operating parameter includes at least one of the following: data rate, power level, and set of data rates.

3. The method of claim 1, wherein the operating parameter values are assigned to the terminals in the order.

4. The method of claim 1, wherein the terminals are mobile terminals.

5. The method of claim 1, wherein at least one of operating parameter values of terminals, of the plurality, that have a lower index in the order will not be made worse due to the presence of terminals,

of the plurality, having a higher index in the order, the operating parameter values include the assigned operating parameter value.

6. The method of claim 1, wherein:

the compensation scheme is dirty paper coding; and

the signals comprise downlink signals, downlink signals being signals communicated from the one or more base stations to the respective ones of the plurality of terminals.

7. The method of claim 1, wherein:

the signals comprise downlink signals and uplink signals, downlink signals being signals communicated from the one or more base stations to the respective ones of the plurality of terminals, uplink signals being signals communicated to the one or more base stations form the respective ones of the plurality of terminals;

the compensation scheme is used for downlink signals; and

a second compensation scheme is used for uplink signals to compensate for interference among the uplink signals uplink, the compensation being performed using a second order of the terminals that defines which terminals' uplink signals are used to compensate for interference in which other terminals' uplink signals.

8. The method of claim 7, wherein the second order is based on at least one different criterion than the first order.

9. The method of claim 1, wherein the order is based on at least one of the following criteria:

the order in which the terminals of the plurality initiated a communication session with the one or more base stations;

the reverse of the order in which the terminals of the plurality initiated a communication session with the one or more base stations;

the respective amounts of data to be transmitted between the terminals and the one or more base stations; and

randomness.

10. The method of claim 1, wherein the order is defined by:

a) identifying an individual one of the terminals for which a certain operating parameter value would be optimal in the absence of interference from the other terminals in the plurality;

b) assigning the individual terminal in step a) to have an index of 1;

c) identifying another individual one of the terminals for which the certain operating parameter value would be optimal in the presence of interference from the assigned terminals in the plurality and in the absence of interference from unassigned terminals in the plurality;

d) assigning the individual terminal in step c) to have the next yet unassigned index in the order; and

e) repeating steps c) and d) until all of the terminals in the plurality are assigned an index in the order.

11. The method of claim 10, wherein:

the certain operating parameter comprises data rate; and

the optimal operating parameter value is the data rate having the highest magnitude of the data rates of the respective terminals.

12. The method of claim 11, wherein at least one other operating parameter of the terminals is fixed.

13. The method of claim 1, wherein, in the portion, signals are communicated between at least one of the one or more base stations and a respective one of a second plurality of terminals, and the method further comprises the step of:

using a second compensation scheme to compensate for interference among the signals between the at least one of the one or more base stations and the second plurality of terminals, the compensation being performed using a second order to determine which of the second plurality terminals' signals are used to compensate for interference in which other of the second plurality terminals' signals.

14. A method for use in at least a portion of a wireless communication system in which signals are communicated between at least one of one or more base stations and respective ones of a plurality of terminals, the method comprising the steps of:

using a compensation scheme to compensate for interference among the signals, the compensation being performed using an order of the terminals that defines which terminals' signals are used to compensate for interference in which other terminals' signals; and

assigning at least one operating parameter value to the terminals in the plurality, the assignment to a particular terminal being such that at least one of operating parameter values of terminals, of the plurality, that have a lower index in the order will not be made worse due to the presence of terminals, of the plurality, having a higher index in the order, the operating parameter values include the assigned operating parameter value.

15. The method of claim 14, wherein the operating parameter includes at least one of the following: data rate, power level, and set of data rates.

16. The method of claim 14, wherein the operating parameter values are assigned to the terminals in the order.

17. The method of claim 14, wherein the terminals are mobile terminals.

18. The method of claim 14, wherein:

the compensation scheme is dirty paper coding; and

the signals comprise downlink signals, downlink signals being signals communicated from the one or more base stations to the respective ones of the plurality of terminals.

19. The method of claim 14, wherein:

the signals comprise downlink signals and uplink signals, downlink signals being signals communicated from the one or more base stations to the respective ones of the plurality of terminals, uplink signals being signals communicated to the one or more base stations form the respective ones of the plurality of terminals;

the compensation scheme is used for downlink signals; and

a second compensation scheme is used for uplink signals to compensate for interference among the uplink signals uplink, the compensation being performed using a second order of the terminals that defines which terminals' uplink signals are used to compensate for interference in which other terminals' uplink signals.

20. The method of claim 19, wherein second order is based on at least one different criterion than the first order.

21. The method of claim 14, wherein the order is based on at least one of the following criteria:

the order in which the terminals of the plurality initiated a communication session with the one or more base stations;

the reverse of the order in which the terminals of the plurality initiated a communication session with the one or more base stations;

the respective amounts of data to be transmitted between the terminals and the one or more base stations; and

randomness.

22. The method of claim 14, wherein the order is defined by:

a) identifying an individual one of the terminals for which a certain operating parameter value would be optimal in the absence of interference from the other terminals in the plurality;

b) assigning the individual terminal in step a) to have an index of one;

c) identifying another individual one of the terminals for which the certain operating parameter value would be optimal in the presence of interference from the assigned terminals in the plurality and in the absence of interference from unassigned terminals in the plurality;

d) assigning the individual terminal in step c) to have the next yet unassigned index in the order; and

e) repeating steps c) and d) until all of the terminals in the plurality are assigned an index in the order.

23. The method of claim 22, wherein:

the operating parameter comprises data rate; and

the optimal operating parameter value is the data rate having the highest magnitude of the data rates of the respective terminals.

24. The method of claim 23, wherein at least one other operating parameter of the terminals is fixed.

25. The method of claim 14, wherein in the portion signals are communicated between at least one of the one or more base stations and a respective one of a second plurality of terminals, and the method further comprises the step of:

using a second compensation scheme to compensate for interference among the signals between the at least one of the one or more base stations and the second plurality of terminals, the compensation being performed using a second order to determine which of the second plurality terminals' signals are used to compensate for interference in which other of the second plurality terminals' signals.

26. A method for use in at least a portion of a wireless communication system in which signals are communicated between at least one of one or more base stations and respective ones of a plurality of terminals, the method comprising the steps of:

using a compensation scheme to compensate for interference among the signals, the compensation being performed using an order of the terminals that defines which terminals' signals are used to compensate for interference in which other terminals' signals; and

assigning a data rate to the terminal such that the data rates of the terminals having a lower index in the order will not be decreased due to the presence of the terminals having a higher index in the order, and without changing the power covariance matrixes of antennas involved in the communication with the terminals having the lower index.